



# Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard 29CFR 1910. Standard must be consulted for specific requirements.

Product: **Threshold Manganese Plus 6-0-0**

**QUICK IDENTIFIER**

Common Name: Chelated manganese nutritional

## SECTION 1 - COMPANY INFORMATION

Manufactured For: Agri-Business Technologies, Inc. Telephone Number: 1-800-535-3820  
Address: 1102 Third Avenue Other Information Call: 1-229-436-4677  
City, State, and Zip Albany, Georgia 31707 Date Prepared: 8/8/07

## SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common name(s))	OSHA PEL	ACGIH TLV	EXPOSURE LIMITS	CAS NO.
Manganese sulfate	5 mg/M3	1 mg/M3		7785-87-7
Ferrous sulfate	N/A	N/A		7782-63-0
Ammonium hydroxide	18 mg/M3	18 mg/M3		7664-41-7

## SECTION 3- PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: N/A °F Specific Gravity: 1.264 Vapor Pressure: N/A

Vapor Pressure: N/A Reactivity in Water: Soluble Melting Point: N/A

Appearance and Odor: dark red color with slight ammonia odor

## SECTION 4- FIRE & EXPLOSION DATA

Flash Point: N/A °F Method Used: N/A  
Flammable Limits in Air: N/A LEL Lower: \_\_\_\_\_ UEL Upper: \_\_\_\_\_  
Auto-Ignition Temp: N/A Extinguisher Media: Non flammable if involved in fire, can extinguish with dry chemical; CO<sub>2</sub>, water spray or foam.

**Special Fire Fighting** This product is non-flammable, and does not support combustion. If heated to

**Procedures:** decomposition sulfur dioxide and ammonia may be released.

Use of SCBA is recommended.

Fire run-off water should be contained to prevent environmental contamination.

**Unusual Fire and**

**Explosion Hazards:** If this product is heated to an anhydrous state it will emit sulfur dioxide and ammonia, are toxic if inhaled. Exposure to high heat can emit toxic vapors.

## SECTION 5- PHYSICAL HAZARDS (REACTIVITY DATA)

Stability:  Stable  Unstable Conditions to Avoid: Excessive heat

**Incompatibility**

**Materials to Avoid!:** Avoid mixtures containing calcium, which will result in the formation of insoluble Calcium Sulfates. Phosphoric acid could cause the formation of insoluble metal phosphates. Avoid strong oxidizers such as bleach.

**SECTION 5- PHYSICAL HAZARDS (REACTIVITY DATA)..Continued**

Hazardous Decomposition Products: \_\_\_\_\_

Hazardous Polymerization: May Occur: Will Not Occur: Conditions to Avoid: Extreme Heat.**SECTION 6- HEALTH HAZARDS****ACUTE:** Mild skin irritant, conjunctivitis, upset stomach and/or gastrointestinal symptoms are temporary.**CHRONIC:** Prolonged skin contact may result in dermatitis (drying) or eczema (itching)

CARCINOGEN	_____	NTP	_____	OSHA	_____
LISTED IN:	_____	IARC MONOGRAPH	_____	NOT LISTED	<u>X</u>

**ROUTES OF ENTRY AND EMERGENCY FIRST AID PROCEDURES**

- |                       |   |
|-----------------------|---|
| <b>1. Inhalation:</b> | <u>No hazard under normal conditions. If necessary move victim to fresh air. If symptoms persist call a physician. Administer CPR if necessary.</u> |
| <b>2. Eyes:</b>       | <u>Flush eyes with running water for 15 minutes. If redness persists, seek medical attention.</u>   |
| <b>3. Skin:</b>       | <u>Remove contaminated clothing, wash with clean water and soap. Put on clean clothes.</u>  |
| <b>4. Ingestion:</b>  | <u>Give large amounts of water. <b>DO NOT INDUCE VOMITING.</b> Call physician immediately.</u>  |

**SECTION 7- SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES****Precautions to be Taken****Handling and Storage:** Store in cool ventilated place away from fire hazards, excessive heat, flammable or easily oxidizable materials. Do not allow product to dry out.**Other Precautions:** Do not allow product to go below 35 degrees. Apply product in open areas. Keep away from children and pets. Do not contaminate feed, seed or any water sources.**Steps to be taken in****case of Release or Spill:** Dike area and maximize recovery. Pump into a tank or absorb with diatomaceous earth or sand. Sweep up and place into containers for land application at recommended rates. Prevent entry into sewers or waterways. Clean up at once; do not allow dry product to come in contact with heat or ignition sources.**Environmental****Precautions:** Relatively low toxicity to fish and aquatic organisms. Do not contaminate any waterway, lakes, streams or estuary by direct application of cleaning of equipment or disposal. Triple rinse empty containers and offer for recycling or dispose of in an approved landfill. Consult federal, state and local rules and regulations for proper disposal.

---

**SECTION 8- CONTROL AND PROTECTIVE MEASURES**

---

**Respiratory Protection:** None required if used in open under normal conditions. Respiratory protection may be required in the event of a spill in an enclosed area. Use SCBA when fighting fires.

---

**Protective Gloves:** Impervious gloves from rubber, neoprene or nitrile.

---

**Eye Protection:** Side-shielded safety glasses or chemical splash-proof goggles.

---

**Other Protective**

**Clothing or equipment:** Eye wash station with safety shower. Use of a chemically resistant apron may be required for some activities.

---

**Hygienic Work Practice** Bathe and change clothes daily. Wash contaminated clothing separate from other laundry.

---

---

**SECTION 9- TRANSPORT AND REGULATORY INFORMATION**

---

**MATERIAL IS NOT HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION**

---

**Proper Shipping Name:** None

**Hazard Class Number:** None

**Description:** None

**UN Identification**

**Number:** None

**Packing Group:** None

**DOT Label(s) Required:** None

**NFPA CODE:** Health = 2      Flammability = 0      Reactivity = 0

**Toxicity:** \_\_\_\_\_

**Notes:** This product is not regulated by EPCRA or any of the provisions of SARA Title III.

---

---

**Emergency Phone – CHEMTREC – 1-800-424-9300**